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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,701	01/12/2004	Shunpei Yamazaki	07977-276002 / US4942D1	9100
26171	7590	08/10/2004	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			NGUYEN, DAO H	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/754,701	Applicant(s) YAMAZAKI ET AL.	
	Examiner Dao H Nguyen	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/12/2004 & 05/24/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0104 & 0504</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the communications dated 01/12/2004 through 05/24/2004, claims 40-62 are active in this application as a result of the cancellation of claims 1-39.

Acknowledges

2. Receipt is acknowledged of the following items from the Applicant.
 - a. Information Disclosure Statement (IDS) filed on 01/12/2004 and 05/10/2004. The references cited on the PTOL 1449 form have been considered.

Applicant is requested to cite any relevant prior art if being aware on form PTO-1449 in accordance with the guidelines set for in M.P.E.P. 609.

- b. This application is a Divisional of the co-pending Application Serial No. 09/862,680 filed 05/21/2001.

Foreign Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim(s) 47-54 is/are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 47, it is not clearly defined and distinctly pointed out the subject matter which is claimed as the Applicant's invention. According to the claim language, the light emitting device comprises an expression of a material formula. This is improper because the device itself cannot comprise a formula; the formula is an expression used to describe a material. The formula itself cannot be included in the device. If the device is disassembled, one cannot find a formula there.

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Claims 48-54 depend from rejected claim 47 and include all of the limitations of claim 47 thereby rendering these dependent claims indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

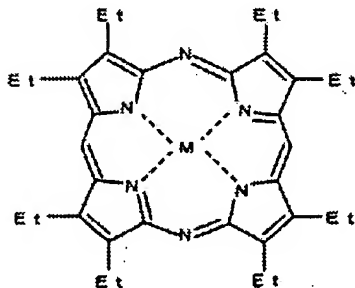
A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claim(s) 47-54 is/are rejected under 35 U. S. C. § 102 (e) as being anticipated by U.S. Patent No. 6,310,360 to Forrest et al.

Regarding claim 47, Forrest discloses a light emitting device comprising a material expressed by a following formula:



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wherein Et represents etyl group ; and M represents an element belonging to group 8 to 10 of a periodic table (col. 9, line 18 to col. 11, line 18; col. 17, line 11 to col. 19, line 19; and col. 20, lines 42-44), and

wherein the light emitting device is operated by signals having a voltage selected from two voltages (col. 1, lines 58-67: the intensity and color of the emitted light are independently varied and controlled with external power supplies. This means that the light emitting device can be operated at various voltages, depending on the expected output light).

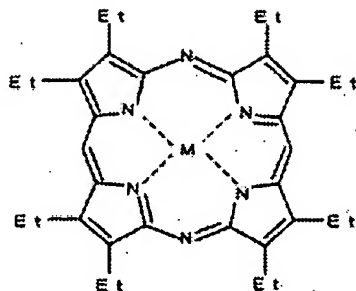
Regarding claim 48, Forrest discloses the device wherein M is an element selected from the group consisting of nickel, cobalt and palladium. See col. 9, line 18 to col. 11, line 18; col. 17, line 11 to col. 19, line 19; and col. 20, lines 42-44.

Regarding claims 49-54, Forrest discloses the device comprising all claimed limitations. See col. 16, line 65 to col. 17, line 8.

9. Claim(s) 47 is/are rejected under 35 U. S. C. § 102 (e) as being anticipated by U.S. Patent No. 6,660,410 to Hosokawa.

Regarding claim 47, Hosokawa discloses a light emitting device comprising a material expressed by a following formula:

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wherein Et represents ethyl group ; and M represents an element belonging to group 8 to 10 of a periodic table (col. 4, line 20 to col. 5, line 36; col. 23, lines 11-58), and

wherein the light emitting device is operated by signals having a voltage selected from two voltages (table 1).

Claim Rejections - 35 U.S.C. § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim(s) 40-46 and 55-62 is/are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,310,360 to Forrest et al., in view of Arai et al., U.S. Patent No. 6,160,272.

Regarding claim 40, Forrest discloses a light emitting device comprising:

an electroluminescent element using a luminescent material (col. 9, line 18 to col. 11, line 18) in which electroluminescence is obtained by triplet excitation (col. 2, line 58 to col. 3, line 53; col. 5, lines 9-27: the ISC Agents convert all of the excitations/excitons into their triplet excitations/excitons, which do emit); wherein the light emitting device is operated by signals having a voltage selected from two voltages (col. 1, lines 58-67: the intensity and color of the emitted light are independently varied and controlled with external power supplies. This means that the light emitting device can be operated at various voltages, depending on the expected output light).

Forrest is silent about a semiconductor component electrically connected to the electroluminescent element.

Arai discloses a light emitting device comprising an electroluminescent device electrically connected to a semiconductor device which is a thin film transistor (col. 1, lines 5-20).

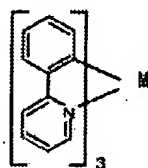
It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Forrest so that it would include a thin film transistor electrically connected to the electroluminescent element as that of Arai in order to control currents applied to the electroluminescent element (col. 1, lines 17-19 of Arai).

Regarding claim 41, Forrest/Arai disclose the device wherein the semiconductor component is a TFT. See col. 1, lines 5-20 of Arai.

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Regarding claims 42-46, Forrest/Arai disclose the device comprising all claimed limitations. See col. 16, line 65 to col. 17, line 8.

Regarding claim 55, Forrest discloses a light emitting device comprising:
an electroluminescent element (col. 9, line 18 to col. 11, line 18), wherein the electroluminescent element includes a thin film including a luminescent material expressed by a following formula:



wherein M represents an element belonging to group 8 to 10 of the periodic table (col. 9, line 18 to col. 11, line 18; col. 17, line 11 to col. 19, line 19; and col. 20, lines 42-44), and

wherein the light emitting device is operated by signals having a voltage selected from two voltages (col. 1, lines 58-67: the intensity and color of the emitted light are independently varied and controlled with external power supplies. This means that the light emitting device can be operated at various voltages, depending on the expected output light).

Forrest is silent about a semiconductor component electrically connected to the electroluminescent element.

Arai discloses a light emitting device comprising an electroluminescent device electrically connected to a semiconductor device which is a thin film transistor (col. 1, lines 5-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Forrest so that it would include a thin film transistor electrically connected to the electroluminescent element as that of Arai in order to control currents applied to the electroluminescent element (col. 1, lines 17-19 of Arai).

Regarding claim 56, Forrest/Arai disclose the device wherein M is an element selected from the group consisting of nickel, cobalt and palladium. See col. 9, line 18 to col. 11, line 18; col. 17, line 11 to col. 19, line 19; and col. 20, lines 42-44 of Forrest.

Regarding claims 57-62, Forrest/Arai disclose the device comprising all claimed limitations. See col. 16, line 65 to col. 17, line 8 of Forrest.

12. Claim(s) 40 is/are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,660,410 to Hosokawa, in view of Arai et al., U.S. Patent No. 6,160,272.

Regarding claim 40, Hosokawa discloses a light emitting device comprising:

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an electroluminescent element using a luminescent material in which electroluminescence is obtained by triplet excitation (col. 2, line 56 to col. 3, line 4),

wherein the light emitting device is operated by signals having a voltage selected from two voltages. This is well known in the art. Note that in a light emitting device, the intensity and color of the emitted light are independently varied and controlled with external power supplies. This means that the light emitting device can be operated at various voltages, depending on the expected output light (See also col. 1, lines 58-67 of U.S. Patent No. 6,310, 360 to Forrest et al.).

Hosokawa is silent about a semiconductor component electrically connected to the electroluminescent element.

Arai discloses a light emitting device comprising an electroluminescent device electrically connected to a semiconductor device which is a thin film transistor (col. 1, lines 5-20).

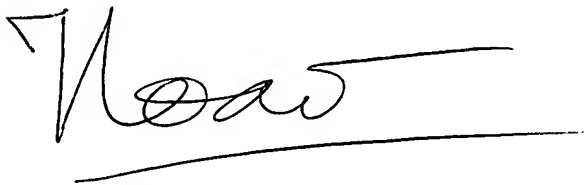
It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Hosokawa so that it would include a thin film transistor electrically connected to the electroluminescent element as that of Arai in order to control currents applied to the electroluminescent element (col. 1, lines 17-19 of Arai).

Conclusion

13. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao H. Nguyen whose telephone number is (571)272-1791. The examiner can normally be reached on Monday-Friday, 9:00 AM – 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax numbers for all communication(s) is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.



Dao H. Nguyen
Art Unit 2818
August 8, 2004



David Nelms
Supervisory Patent Examiner
Technology Center 2800